REMARKS

To expedite prosecute prosecution in view of the indication that claims are free of the prior art, applicants have cancelled claims 33 and 34 without prejudice. Claim 35 has also been cancelled, but merely for the purpose of presenting it in independent form as claim 37. Claim 36 has been amended. No new matter has been added. Thus, entry of the amendment is respectfully requested.

Claims 33-36 have been rejected under 35 U.S.C. § 112, first paragraph, as non-enabled for method of selecting transgenic plant cells that express a cystathionine gamma synthase (CGS). The Examiner has indicated, however, that the specification is enabling for methods for selecting transgenic plants that express cystathionine gamma synthase. The allegations are that Applicants have failed to teach the effect of expressing CGS on plant cells in culture, what concentrations of ethionine are inhibitory to plant cell growth, and that it is unpredictable whether ethionine could actually be used as a selection agent because sensitivity of such cells may differ depending on the particular cell part. Inaba, *et al.*, Plant Physiol. *104*:881-87 (1994), has been cited in support of these allegations. According to the Examiner, *Inaba* teaches that resistance of plants to ethionine is due to the presence of excess soluble methionine in the plant cell, but that CGS activity (which catalyzes transsulfuration of *O*-phosphohomoserine with sulfur of Cys to produce cystathionine) decreases with the addition of methionine, and that methionine levels vary in different plant tissue and at different times during plant development. Thus, the Examiner has concluded that undue experimentation would be required to determine particular culture conditions, if any, that would allow for the selection of CGS transformed cells, as the effect of different

concentrations of ethionine and possibly methionine and/or O-phosphohomoserine in culture would have to be tested.

In response to the rejection, Applicants have amended claim 36 and presented new claim 37 which are directed to "plant cells" rather than a singular plant cell *e.g.*, a protoplast. Applicants submit that the specification enables a method of selecting plant cells *e.g.*, transformed plant tissue or plant part, or plant tissue or plant part obtained from a transformed plant, for successful transformation events using CGS/ethionine. For example, the present specification demonstrates selection of transformed potato plants on media containing ethionine *i.e.*, by showing that plants containing the CGS gene were able to form roots on media containing ethionine. The teachings of *Inaba* have been incorporated by reference into the specification. Those, in addition to the forementioned teachings in Example 1 and on pages 9-10, would enable persons skilled in the art to practice the claimed invention without undue experimentation. Thus, to the extent that plant tissue or a plant part was obtained from a transformed plant and tested to determine whether transformation was successful, persons skilled in the art would be able to select appropriate concentrations of ethionine, taking into account such factors as the region of the plant from which the tissue or part was taken, and the age of the plant, without undue experimentation. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 33, 35 and 36 have been rejected as indefinite on three grounds. The first ground of rejection is that the recitation "would be" is unclear as to what point in time the ethionine would be toxic to the plant cell. Applicants respectfully traverse this ground of rejection. This phrase further defines the amount of ethionine in terms of amounts that would ordinarily be toxic to a plant cell (that does not express

a DNA molecule encoding a CGS), as opposed to having any temporal significance.

The second ground of rejection is that the recitation "a first DNA molecule of interest and a second DNA molecule encoding a CGS" is unclear whether the first DNA molecule could also encode a CGS such that *both* the first and second DNA molecules encode a CGS. Applicants respectfully traverse this ground of rejection.

The objection appears to be directed to the breadth of the claims and not indefiniteness. In any event, the claims do, in fact, cover embodiments wherein both DNA molecules encode a CGS. Practically speaking, however, persons skilled in the art would most likely choose a selection marker other than CGS when transforming a plant with a CGS gene.

In the third ground of rejection, the Examiner has objected to claims 33 and 36 as indefinite in the recitation of a chimeric gene that has one promoter operably linked to two distinct nucleic acid sequences. The Examiner has specifically questioned how a polycistronic chimeric gene as claimed can function in a plant cell, given that "eucaryotic systems are generally monocistronic."

Claim 33 has been cancelled. In response to the objection, applicants have amended claim 36 to recite that the first DNA molecule of interest and the second DNA molecule that encodes a CGS are each under the control of separate promoters. Claim 37 contains the same recitation.

In view of the foregoing, each ground of rejection under § 112, second paragraph, is respectfully requested.

Applicants respectfully submit that the cancellation of claims 33 and 34 renders moot the rejection of these claims under 102(e), over *Falco, et al.*

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: April 6, 2004

Respectfully submitted,

By Shawn P. Foley

Shawn P. Foley
Registration No.: 33,071
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 654-5000
Attorney for Applicant

486312_1.DOC